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On March 3, 2006

Conrad O. Gardner
By: Conrad O. Gardner

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Conrad O. Gardner

Group Art Unit: 3611

Application No.: 08/896,514

Examiner: Leslie D. Morris

Filing Date: 06/23/97

Docket No.: 95-004 M

Date:

For: EXTENDED RANGE MOTOR VEHICLE HAVING AMBIENT POLLUTION
PROCESSING

Attention: Board of Patent Appeals and Interferences
Assistant Commissioner for Patents
Alexandria, Va. 22313-1450

BRIEF ON APPEAL

Sir:

This is an appeal from the final rejection of the examiner on Remand by the Board of Appeals to consider the new rejection of claims 55 and 59 under 35 USC 103 as being unpatentable over Lynch (U.S. patent 4,165,795 in view of nickel cadmium batteries known in the art and comprising "fast charge-discharge: batteries.

Applicant files this Brief on Appeal within the two month period for such response following the filing of a Notice of Appeal.

A check in the amount of \$250 is enclosed for filing this Brief (small entity).

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REAL PARTY IN INTEREST

The real party in interest is the applicant.

RELATED APPEALS AND INTERFERENCES

1. DECISION ON APPEAL

Dated June 29, 2005 (Appeal No. 2005-1094; application No. 08/896,514).

2. REMAND TO THE EXAMINER

Dated September 9, 2005 (Appeal No. 2005-1094, application No. 08/896,514).

STATUS OF CLAIMS

ALLOWED CLAIMS

- a. Claims 38, 39, and 52 and 53 are indicated as allowable in independent form while claims 30-33 stand allowed.
- b. The rejection of claim 37, and claims 40 and 41 dependent thereon was not sustained by the Board of Appeals in the DECISION ON APPEAL and consequently stand allowed.
- c. Claims 55 and 59 comprise a new rejection in the DECISION ON APPEAL and REMAND TO THE EXAMINER and are the subject of the present appeal.
- d. Claims 34-36, 46-51, and 54-61 stand rejected under either 35 USC 112, 102, 103 or a combination of both.

STATUS OF AMENDMENTS

None filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 55

Method steps a. and b. of claim 55 are found occurring at times during the operation of the present system and shown e.g. in the graph of Figure 2. Clause a. e.g. is referenced at page 7, lines 6-7 while clause b. is referenced e.g. at page 7, lines 19-24. Clauses a. and b. are method steps mentioned further at many other points in the specification during system operation. The nature of charging fast charge-discharge battery in step a. is referenced e.g. at page 7, lines 8-9.

Claim 59

The method steps occurring in steps a. and b. of claim 59 are also shown occurring at times during operation of the present system e.g. in the graph of Figure 2 and described further in the specification. Clause a. is referenced at page 6, lines 27-28 while method step b. is referenced e.g. at page 2, lines 24-26. The nature of fast charge-discharge battery referenced as powering the electric motor in clause a. and conserving electric power in clause b. is found at page 7, Lines 8-9.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 55 and 59 are unpatentable under 35 USC 103 over Lynch (U.S. Patent 4,165,795) in view of nickel cadmium batteries known in the art and comprising "fast charge-discharge" batteries.

ARGUMENT

I

THE EXAMINER HAS FAILED TO ESTABLISH A PRIMA FACIE

CASE OF OBVIOUSNESS

To establish a prima facie case of obviousness three criteria must be met. First, there must be some suggestion of motivation in the references themselves to modify the reference or make the combined teachings. In re Vaeck, 947 F.2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991).

The final rejection of claims 55 and 59 is in error since relying on the following battery specification (col.5, lines 13-20) from Lynch for motivation to use fast charge-discharge batteries such as nickel cadmium batteries in Lynch:

“Although the motor-generator may use most any voltage, it has been found that using two parallel sets of six (12volt) batteries (72 volts) is **satisfactory**. The batteries should be designed for short duration, high current discharge and have low internal resistance. This can be achieved using standard automotive starting batteries with a large number of thin plates.”

Standard automotive starting batteries having the above defined characteristics for cranking an engine are **not** “fast charge-discharge batteries” as defined in the specification and specified for use in the methods of operation in claims 55 and 59 to achieve **EXTENDED RANGE** as stated in the title of the present application. (See page 12, beginning at line 6 of the **DECISION ON APPEAL** where the Board interpreted “fast charge-discharge” battery as used in applicants claims 55 and 59 as a battery capable of faster charge than the current lead acid batteries.” As a consequence, there is **no evidence or motivation** as to why batteries capable of faster charge would be used in Lynch. Further, one of ordinary skill in the art would follow the specification and make the designed power pack as stated since it is **satisfactory**.

SINCE THE EXAMINER BEARS THE INITIAL BURDEN OF FACTUALLY SUPPORTING A PRIMA FACIE CONCLUSION OF OBVIOUSNESS AND HAS NOT PRODUCED A PRIMA FACIE CASE, THE APPLICANT IS UNDER NO OBLIGATION TO SUBMIT EVIDENCE OF NONOBVIOUSNESS

III

EVIDENCE OF NONOBVIOUSNESS OF SUBSTITUTING NICKEL CADMIUM BATTERIES FOR LEAD ACID BATTERIES IN THE SYSTEM OF LYNCH IS CLEARLY PROVEN BY THE AFFIDAVIT OF PHILIP C. MALTE

The “**DETAILED ACTION**” presented by the examiner on page 3 of the final rejection concerns the Rule 132 Affidavit of Philip C. Malte (included in the **APPENDIX**) wherein all the factual evidence is repeated and accepted.

It is admitted that fast charge-discharge batteries were known at the time of the invention. It is also clear from the Rule 132 Affidavit that such batteries were not only not used in automobiles, though known, but were actually avoided for reasons stated in the Affidavit and repeated by the examiner beginning at page 3, line 7 and following. This factual evidence specifically teaches away from the examiner’s position that it would have been obvious to substitute for the lead acid battery. In summation, the fast charge-discharge battery was known at the time of the invention and rejected for use in automotive environments. It follows that not only is there no teaching to combine such battery in an automotive system, but on the other hand, the prior art teaches away from such a combination. In this regard, reference is made to *In re Moore*, 170 USPQ 260 (included in the **APPENDIX**, a CCPA decision whose decisions have been adopted by the CAFC.

IV

CLAIMS 55 AND 59 DISTINGUISH OVER LYNCH (U.S. PATENT 4,165,795) .

CLAIM 55

Claim 55 specifies “ rapidly capturing power from a continuously running low horsepower internal combustion engine to charge a fast charge-discharge battery without loss of said power”. In contrast, energy is applied to banks of 12 volt starting batteries in a regulated and limited manner according to a formula, e.g. “ As much energy should be supplied to the batteries during periods of low load as drawn from the batteries in periods of high load when averaged over the period of a typical mission (col. 4, lines 66

through col. 5)

CLAIM 59

Claim 59 specifies “causing a fast charge-discharge battery to power the electric motor upon throttle demand”

The Board decision (**DECISION ON APPEAL**) at page 21, penultimate and last line to line 1 of page 22 recognized that Lynch does not utilize pedal information to control operation of the motor as called for in claim 59 but in contrast relies solely on shaft speed.

V

LYNCH (U.S. PATENT 4,165,795) CLEARLY TEACHES AWAY FROM THE CLAIMED INVENTION

The Lynch system provides just enough energy to accommodate the energy requirements of a particular mission (col. 9, lines 38-41) or a mission can be designed for full discharge of the lead acid batteries (col. 9, lines 45-49 necessitating the slow battery recharging period required for lead acid batteries.

Accordingly, the Lynch system design philosophy is directed specifically to reaching a mission range for a lead acid battery packs or reaching a full discharge of the lead acid batteries utilizing a shaft between motor and engine teaching away from the methods of operation utilizing the method steps of claims 55 and 59 to achieve extended range utilizing fast charge-discharge batteries.

VI

PIONEER PATENT

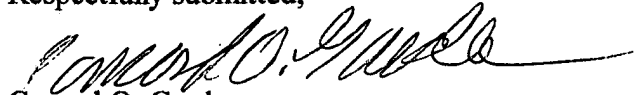
A DECLARATION UNDER 37 CFR 1.195 REGARDING PIONEER STATUS is included in the **APPENDIX**.

Pioneer status is clearly confirmed by the evidence presented in the Declaration. As stated by Justice Brewer in *Westinghouse v. Boyden Brake Company*, May 9, 1898, “The very term “” pioneer patent”” signifies that the invention has been followed by others. A pioneer patent does not shut, but opens the door for subsequent inventions”. The invention as defined by claims 55 and 59 providing extended range through charging and powering by fast charge-discharge batteries opened the door to subsequent inventions and satisfied a long felt need and failure of others.

CONCLUSION

It is believed that for the above reasons and upon consideration of all the evidence, claims 55 and 59 will be found clearly patentable within the meaning of 35 USC103 and that the final rejection on Remand should be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Conrad O. Gardner", with a long horizontal flourish extending to the right.

Conrad O. Gardner

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CLAIMS APPENDIX

55. A method of operating a hybrid vehicle having an electric motor and internal combustion engine power comprising:

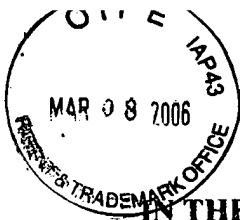
- a. rapidly capturing power from a continuously running low horsepower internal combustion engine to charge a fast charge-discharge battery without loss of said power; and.
- b. providing instant powerful acceleration while in the cruise mode and the speed of the vehicle is dropping.

59. In combination in the method of operating a hybrid vehicle having an electric motor and an internal combustion engine:

- a. causing a fast charge-discharge battery to power the electric motor on throttle demand; and,
- b. transferring power output into electric power conserved in a fast charge-discharge battery when the internal combustion engine continues to run.

EVIDENCE APPENDIX

Affidavit of Philip C. Malte



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: GARDNER, Conrad O.

Application No.: 08/896,514

Filing Date: June 23, 1997

Docket No.: 95-004M

Date:

For: EXTENDED RANGE MOTOR VEHICLE HAVING AMBIENT
POLLUTANT PROCESSING

AFFIDAVIT OF PHILIP C. MALTE UNDER RULE 132

Philip C. Malte, being duly sworn, deposes and states:

1. Philip C. Malte is Professor of Mechanical Engineering at the University of Washington, Seattle, Washington. This position has been held since 1983. In The 10-year period to 1983, Philip C. Malte was Assistant Professor of Mechanical Engineering at Washington State University, Pullman, Washington, Associate Professor of Mechanical Engineering at Washington State University, and, Associate Professor of Mechanical Engineering at the University of Washington. Additional positions include Engineer (Martin Marietta Corporation), Senior Engineer (Rohr Industries), Senior Engineer and Chief Consulting Engineer (Energy International, Inc.), and U.S. Department of Energy (Faculty Rotator).
2. Philip C. Malte studied engineering at the University of Michigan, Ann Arbor, Michigan. The degrees received include PhD in 1971, Master of Science in 1966,

And Bachelor of Science in 1964.

3. Philip C. Malte has performed research and published in the field of Combustion since 1970. Focus of the research has been on the generation and control of pollutants in combustion systems, especially in gas turbine engines and piston engines.
4. Philip C. Malte has taught university courses on combustion engines and on combustion science and technology for approximately 25 years. The University of Washington course numbers are ME 481 and ME 424. Other courses taught deal with energy conversion.
5. Philip C. Malte has developed and maintained laboratories that support research and teaching on combustion and combustion engines. The Internal Combustion Laboratory at the University of Washington includes dynamometer test stands with engines, including a multi-cylinder gasoline engine, a single cylinder spark ignition engine, and two single-cylinder diesel engines.
6. Teaching on engines by Philip C. Malte has included traditional spark ignition and diesel engines, improvements in combustion for these engines, and alternatives to these engines. The latter topic includes hybrid-electric engines. Research on engines has dealt with combustion for land-based gas turbine engines and large-bore spark ignition engines, and alternative fuels for these engines.
7. Philip C. Malte is a member of the Society of Automotive Engineers (SAE) and Combustion Institute (CI), and a Fellow of a American Society of Mechanical Engineers (ASME).
8. Publication by Philip C. Malte has occurred in the journals and proceedings of the

ASME and CI. Additionally, SAE papers have been written.

9. Familiarity with hybrid-electric propulsion for automobiles has been gained by Philip C. Malte through teaching and study of the subject.
10. Philip C. Malte keeps abreast of the state of the art in combustion engines and related fields.
11. The new ground of rejection states that claims 55 and 59 are obvious to one of ordinary skill in the art over Lynch in view of nickel cadmium batteries

Nickel cadmium (Ni-Cd) batteries

Maintenance and operation issues:

- 1) Topping off with either demineralized or distilled water is required about once every 10 cycles- i.e. several times a week for normal automotive use. Water should be added 1 hour after batteries have reached full charge. Overfilling with water requires repair of batteries by manufacturer's authorized personnel.
- 2) Batteries would need to be cooled during charging to prevent damage from over heating.

Limited availability:

- 1) In 1990's only one manufacturer of Ni-Cd batteries of size appropriate for automotive propulsion. This is a foreign manufacturer (France).

Toxicity

- 1) Cadmium is a toxic metal and requires careful and cumbersome recovery and disposal or recycling/reprocessing. There were few qualified to do this.

Conclusion

Ni-Cd batteries are relatively old and developed technology with not a whole lot of potential for improvement- probably a dead technology. They have not caught on for automotive propulsion.

Clearly, they would not have been the choice of one of ordinary skill in the field of hybrid electric vehicles in the 1990's.

Reference:

John F. Weale (1998). "Electric Propulsion for Tour Boats Operated on Crater Lake". Master of Science Thesis, Department of Mechanical Engineering, University of Washington, Seattle, Washington. (This is a public document available from the University of Washington Libraries.)

Further, affiant sayeth naught.

Dated: August 15, 2005
Philip C. Malte
Philip C. Malte

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

Subscribed and sworn to before me this 15 day of August 2005



Sam C. Chin
Notary Public

My Commission Expires: 5/30/2008

EVIDENCE APPENDIX

In re Moore, 170 USPQ 260

In re Moore, 170 USPQ 260 wherein the CCPA stated at page 263:

"Again we are confronted with a set of circumstances which occurs too frequently in Patent Office appeals. In its review of the examiner's decision in this case, as noted above, the board made a ruling based not upon the facts of record which it had before it, but rather on a finding of a new fact. We recognize the right of the board, under the statute and rules, to make additional findings. We also acknowledge the technical expertise of the individual members of the board in making findings of technical fact based upon their own knowledge and experience. We have consistently sought to give weight to such findings where they do not appear unreasonable on their face and are not challenged by the applicant.

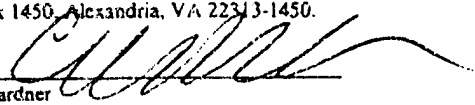
A finding such as was made here, however, supporting as it does an alternative ground for sustaining the examiner's rejection, and apparently based on nothing more than a bare allegation of scientific fact, does everything but cry out for an opportunity to respond. Appellant here did respond, and challenged the board's assertion with an allegation of his own to the contrary. He supported his assertion with the affidavit opinion of an acknowledged expert in the art. Encouraged and misled, perhaps, by some language in earlier opinions of this court, the board gave little consideration to appellant's assertion. This we feel was wrong. Appellant's response here was more than mere "argument". It was a direct challenge to a finding of fact made for the first time by the board and included with it some evidence in the nature of rebuttal. Under the circumstances, it was entitled to more serious consideration. We shall so treat it.

The contrary assertion made by appellant also does not appear unreasonable to us. In the absence of any cited authority or more detailed reasoning by which we could better evaluate the position taken, we are compelled to conclude that the Barney affidavit is sufficient to rebut the assertion made by the board..." /

Accordingly, the opinion of Dr. Havemann must be accepted or refuted. Since the declaration of Dr. Havemann has nowhere been refuted, it must be accepted.

EVIDENCE APPENDIX

Declaration Under 37 CFR 1.195 Regarding Pioneer Status

I certify that on the date specified below this correspondence is being mailed as first-class mail, postage prepaid, addressed to Board of Patent Appeals and Interferences, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.	
4/27/04	 Conrad O. Gardner

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Conrad O. Gardner	Group Art Unit:	3618
Application No.:	08/896,514	Examiner:	A. Lerner
Filing Date:	06/23/97	Docket No.:	95-004M
Date:			

For: Extended Range Motor Vehicle Having Ambient Pollution Processing

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.195
REGARDING PIONEER STATUS**

Sir:

This declaration regarding the system disclosed in the present application and parent continuation patents has gained "pioneer status due to the position occupied by the invention in the art to which it pertains or which it creates (See, *MAC Corp of America v. Williams Patent Crusher and Pulverizer Co.*, 767".

See also CHI Research Paper, "*Pioneer Patents*" which are heavily cited by later patents, Vol. IV, No. 1, March 1995.

A patent with large numbers of citations may be entitled to broader claims because it has greatly advanced the state of the art. For as Judge Brewer stated in *Westinghouse v. Boyden Power Brake Company*, May 9, 1898, "The very term, 'pioneer patent' signifies that the invention has been followed by others. A pioneer patent does not shut, but opens the door for subsequent inventions.

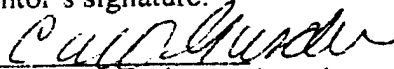
The attached listing of 53 patents cited by the Examiners of the U.S.P.T.O. regarding the present system clearly confirms pioneer status which opened the door for subsequent inventions.

37 CFR 1.195 states that declarations after the case has been appealed will not be admitted without a showing of good and sufficient reasons why they were not presented earlier. Applicant researched the present complete listing of cited patents as of March 14, 2004 during the time period for which a Reply Brief is due.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Conrad O. Gardner

Inventor's signature:



Date: 4/27/04

Enclosures:

Research Results for U.S. Patents

5,301,765

5,346,031

CHI Research Article, Vol. IV., No. 1 – March 1995


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Searching 1976 to present...




Results of Search in 1976 to present db for:

REF/5,301,764: 20 patents.

Hits 1 through 20 out of 20

 ref/5,301,764

PAT. NO.	Title
1 6,554,088	Hybrid vehicles
2 6,367,570	Hybrid electric vehicle with electric motor providing strategic power assist to load balance internal combustion engine
3 6,338,391	Hybrid vehicles incorporating turbochargers
4 6,209,672	Hybrid vehicle
5 6,205,379	Controller for hybrid vehicle wherein one and the other of front and rear wheels are respectively driven by engine and electric motor
6 6,064,937	Compound cruise control system and method for solar cars
7 6,008,606	Starting assistance device for a vehicle with a motor and dog-clutch control for transmitting a torque to idler wheels
8 6,007,443	Hybrid vehicle
9 5,988,307	Power transmission apparatus, four-wheel drive vehicle with power transmission apparatus incorporated therein, method of transmitting power, and method of four-wheel driving
10 5,845,731	Hybrid motor vehicle
11 5,704,440	Energy distribution method for hybrid electric vehicle
12 5,667,029	Drive system for hybrid electric vehicle
13 5,644,200	Driving electrical machine speed controlled power combined system and device
14 5,627,438	Pulsing control for an inertial drive system for a multi-motor binary array vehicle
15 5,574,340	Electrical and electromagnetic rotary motor apparatus and method utilizing self-generated secondary electrical energy
16 5,558,173	Integrated hybrid transmission with mechanical accessory drive
17 5,557,934	Efficient energy conversion apparatus and method especially arranged to employ a stirling engine or alternately arranged to employ an internal combustion engine

18 5,550,445  Generator controller and controlling method for hybrid vehicle
19 5,495,906  Controller of hybrid electric vehicle
20 5,489,001  Differential coupling and compound power system for a vehicle

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REF/5,346,031: 33 patents.

Hits 1 through 33 out of 33

ref/5,346,031

PAT. NO.	Title
-------------	-------

- 1 6,692,405  Power transmission apparatus for an automobile
- 2 6,668,954  Electric hybrid vehicle
- 3 6,661,109  Electric generating system for automobiles and its control method
- 4 6,578,649  Hybrid vehicle
- 5 6,554,088  Hybrid vehicles
- 6 6,481,516  Electric hybrid vehicle
- 7 6,440,036  Power transmission apparatus for an automobile
- 8 RE37,743  Distributed differential mixing combined power system
- 9 6,394,209  Motor vehicle serial hybrid drive for I.C. engine operated only at or near full load
- 10 6,383,114  Hybrid vehicle control apparatus having a device for synchronizing friction members of one of two clutches corresponding to one of two different neutral states
- 11 6,367,570  Hybrid electric vehicle with electric motor providing strategic power assist to load balance internal combustion engine
- 12 6,338,391  Hybrid vehicles incorporating turbochargers
- 13 6,328,670  Power transmission apparatus for an automobile
- 14 6,234,932  Control apparatus for a hybrid vehicle
- 15 6,209,672  Hybrid vehicle
- 16 6,205,379  Controller for hybrid vehicle wherein one and the other of front and rear wheels are respectively driven by engine and electric motor
- 17 6,142,907  Power transmission apparatus for an automobile
- 18 6,098,733  Hybrid drive system for motor vehicle
- 19 RE36,678  Hybrid vehicle
- 20 6,044,922  Electric hybrid vehicle

- 21 6,008,606  Starting assistance device for a vehicle with a motor and dog-clutch control for transmitting a torque to idler wheels
- 22 5,992,153  Power unit for a vehicle
- 23 5,823,282  Hybrid vehicle with oil pump selectively driven by the engine, a generator or a motor
- 24 5,788,004  Power control system for motor vehicles with a plurality of power-converting components
- 25 5,785,137  Hybrid electric vehicle catalyst control
- 26 5,704,440  Energy distribution method for hybrid electric vehicle
- 27 5,673,939  Fuel tank for storing and dispensing hydrogen and oxygen gas to a fuel cell
- 28 5,667,029  Drive system for hybrid electric vehicle
- 29 5,658,013  Fuel tank for vehicles for holding and dispensing both a liquid and gaseous fuel therein
- 30 5,588,498  Electric hybrid vehicle
- 31 5,562,566  Distributed differential mixing combined power system
- 32 5,513,719  Hybrid vehicle
- 33 5,469,816  Control mechanism for an electric generator motor in an internal combustion engine
-

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CHI'S RESEARCH

Vol. IV, No. 1 - March 1995
(Reformatted March 2002)

An Informal, periodic newsletter to keep our clients and colleagues informed of interesting findings at CHI Research.

'Pioneer Patents' are Heavily Cited by Later Patents

In a series of published papers CHI has shown that technologically important patents tend to be much more highly cited than average patents. We have now extended that finding to legally important patents, by showing that patents designated as 'Pioneer patents' by the courts also tend to be much more highly cited than average patents. Furthermore, in a similar analysis we have found that patents in the National Inventors Hall of Fame are also cited much more than average.

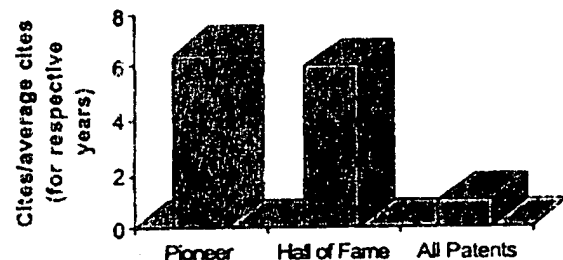
Pioneer patents are patents which the courts have found to be so groundbreaking that they deserve a wide breadth of protection in construing their claims and specifications. Hall of Fame patents are U.S. patents selected by a committee of representatives from national scientific and technical organizations.

The graph below shows the number of citations received since 1971 for Pioneer and Hall of Fame patents issued since 1960; the solid line shows the number of citations an average patent has received since 1971. (1971 is the first year that patent citation data are available in machine readable form.) All of the Hall of Fame patents, and all but two of the Pioneer patents have been cited more than expected, and several have been cited more than 20 times, including S. D. Stookey's 1960 patent "Method of making Ceramics and Product Thereof" with 96 citations since 1971. Stookey's patent has 93 more citations than the average 1960 patent and continues to be cited by recent patents, including 4 patents issued in 1994.

Further, we have found that the citations are rather evenly distributed among later patent years; the citations accrue steadily, and do not suddenly accumulate after a patent is designated as a Pioneer or Hall of Fame patent.

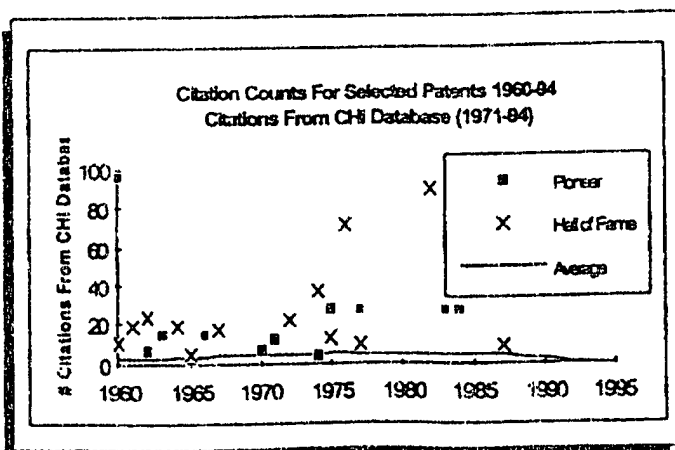
The summary histogram shows that on average, Pioneer patents are cited 6.6 times as frequently as expected, and Hall of Fame patents 6.3 times the expected rate.

Citation Indices for Selected Patents
Patents Granted 1960-94
Citations from 1971-94



The Implications

- This is further evidence that important patents tend to be highly cited by later patents.
- Citation analysis may provide solid evidence for use in patent infringement cases.
- A patent with large numbers of citations may be entitled to broader claims because it has greatly advanced the state of the art. For as Justice Brewer stated in *Westinghouse V. Boyden Power Brake Company* May 9, 1898, "The very term, 'pioneer patent' signifies that the invention has been followed by others. A pioneer patent does not shut, but opens the door for subsequent inventions."



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Areas of Interest:

- ☐ Competitor Assessments
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- ☐ R&D Productivity Assessments
- ☐ Cross Licensing Support
- ☐ M&A Targeting
- ☐ M&A Technological Due Diligence
- ☐ Investment Databases
- ☐ Technology Tracing in Three-Planes

- ☐ Domain Mapping
- ☐ Hot-Spots Identification
- ☐ Critical Technologies
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EVIDENCE APPENDIX

Related proceedings: None

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